OIPE IAP28
JAN 19 2006
PATENT & TRADEMARK OFFICE

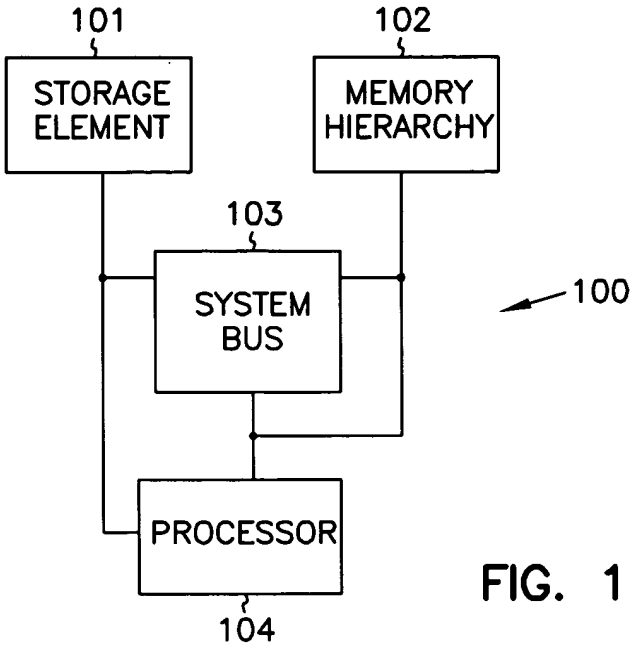

FIG. 1

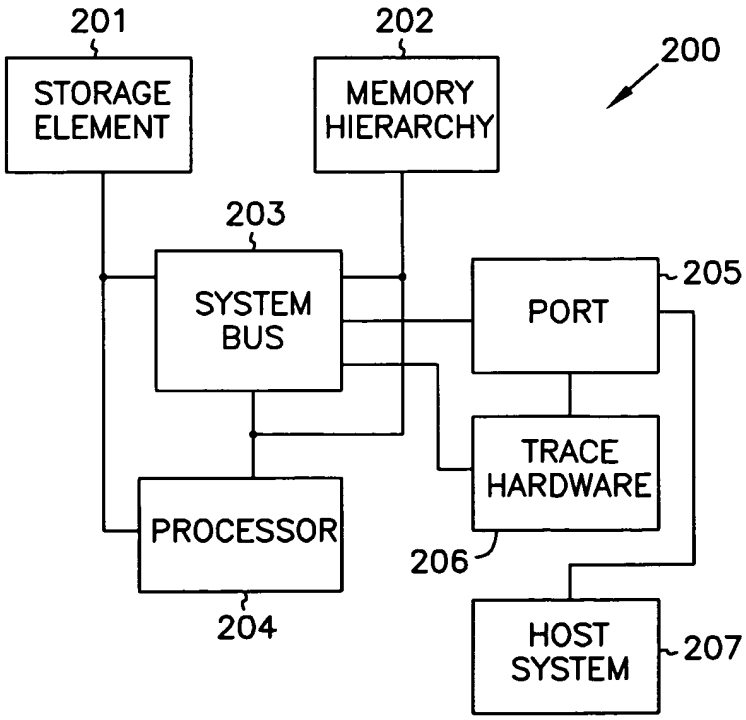

FIG. 2

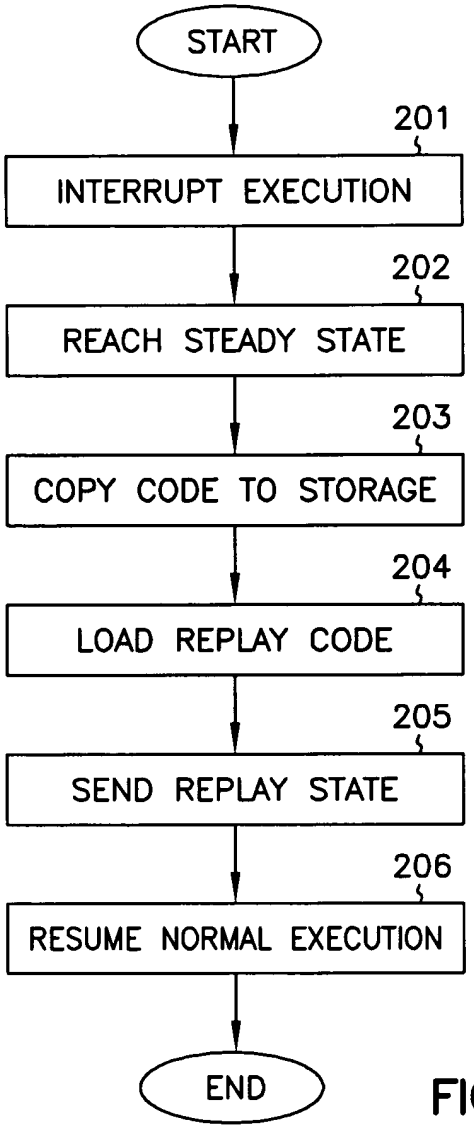
START
201
INTERRUPT EXECUTION
202
REACH STEADY STATE
203
COPY CODE TO STORAGE
204
LOAD REPLAY CODE
205
SEND REPLAY STATE
206
RESUME NORMAL EXECUTION
END

FIG. 2

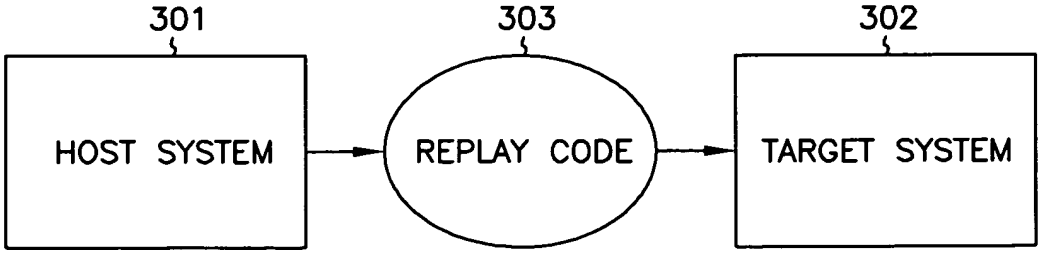
301
HOST SYSTEM
303
REPLAY CODE
302
TARGET SYSTEM

FIG. 3

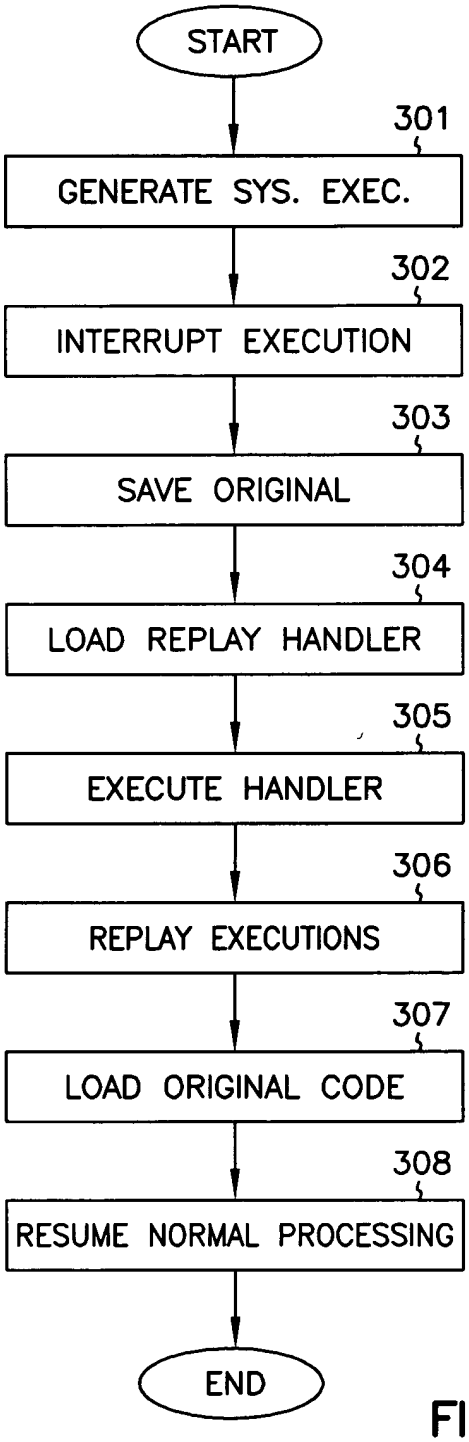
START
301
GENERATE SYS. EXEC.
302
INTERRUPT EXECUTION
303
SAVE ORIGINAL
304
LOAD REPLAY HANDLER
305
EXECUTE HANDLER
306
REPLAY EXECUTIONS
307
LOAD ORIGINAL CODE
308
RESUME NORMAL PROCESSING
END

FIG. 3

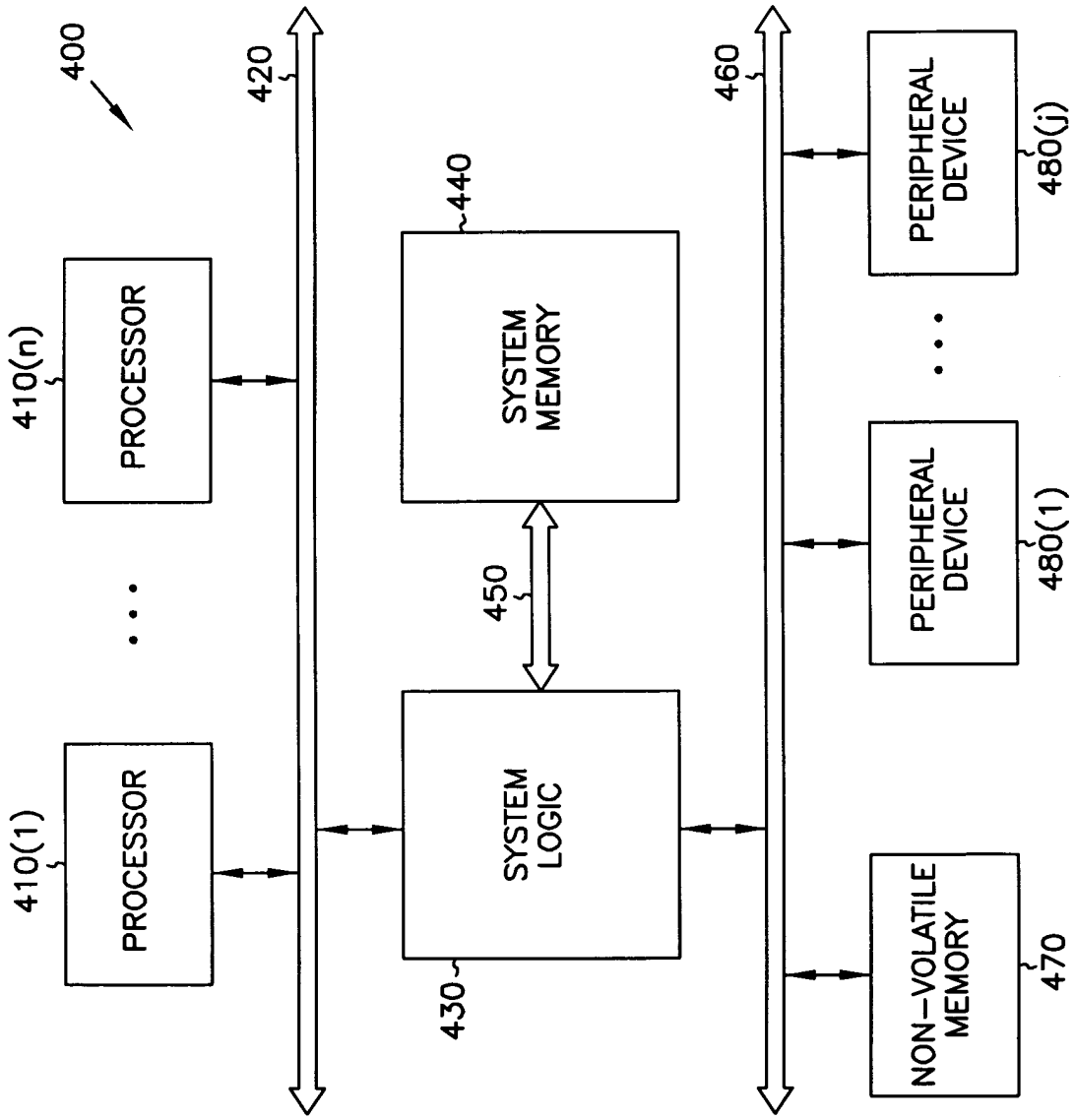
400
420
460
410(n)
PROCESSOR
440
SYSTEM MEMORY
PERIPHERAL DEVICE
480(j)
450
410(1)
PROCESSOR
SYSTEM LOGIC
PERIPHERAL DEVICE
480(1)
430
NON-VOLATILE MEMORY
470

FIG. 4

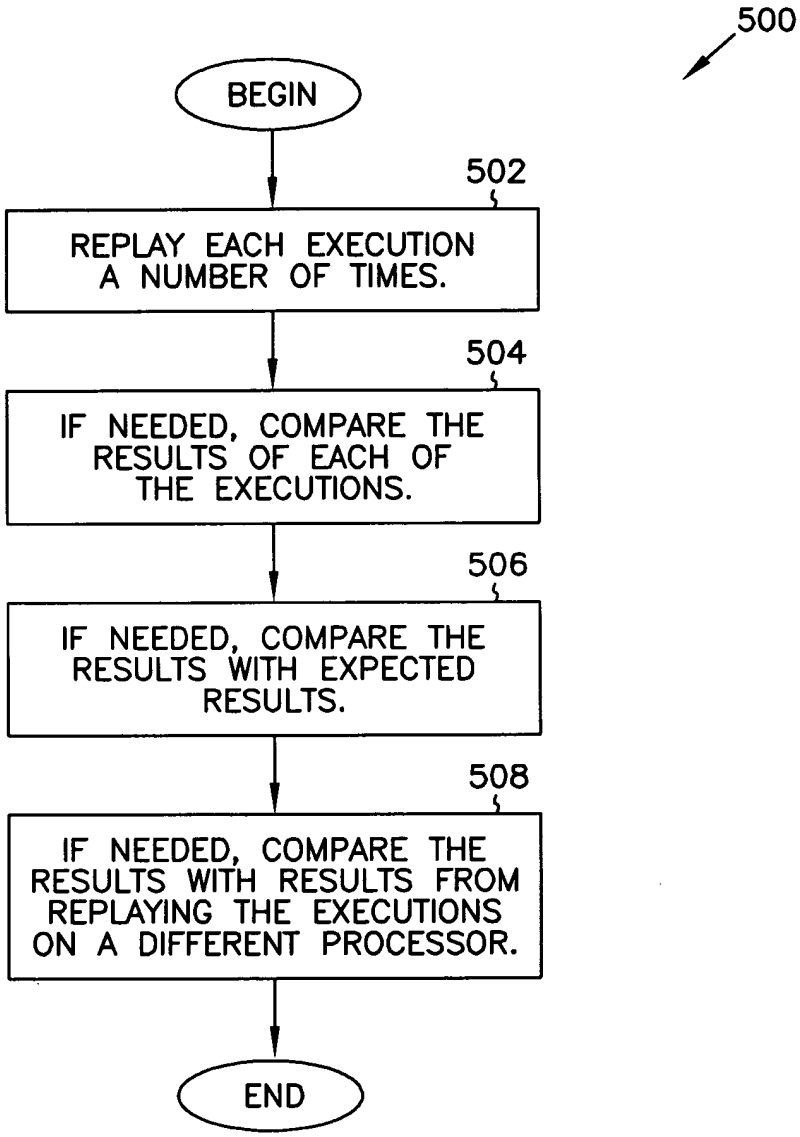
500
BEGIN
502
REPLAY EACH EXECUTION A NUMBER OF TIMES.
504
IF NEEDED, COMPARE THE RESULTS OF EACH OF THE EXECUTIONS.
506
IF NEEDED, COMPARE THE RESULTS WITH EXPECTED RESULTS.
508
IF NEEDED, COMPARE THE RESULTS WITH RESULTS FROM REPLAYING THE EXECUTIONS ON A DIFFERENT PROCESSOR.
END

FIG. 5